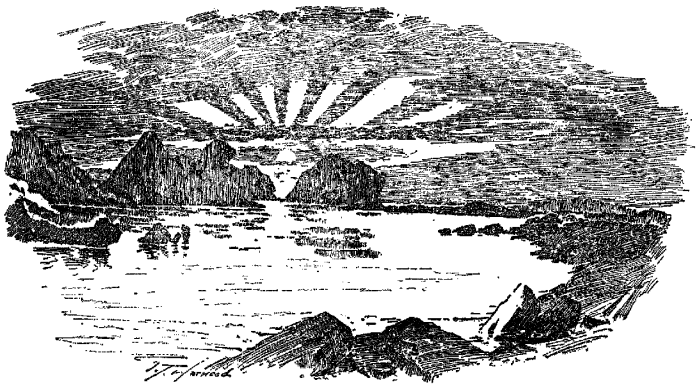
Statement of Current Conditions and Trends on Great Salt Lake



Overview

DNR has management programs in place for the resources of GSL. Those programs are designed to both conserve the lake's resources, and to make those resources available for beneficial uses. DNR's management of AISP and Farmington Bay Waterfowl Management Area (WMA), the regulation of commercial brine shrimping and sport hunting and the Mineral Leasing Plan (MLP) are examples of resource management programs currently in operation.

At the same time, factors exist which are affecting or have the potential to affect the lake, its resources and beneficial uses. Purposes of this planning process are to ensure that existing programs contribute optimally to DNR's management objectives for the lake and that emerging issues and demands are addressed in a coherent and comprehensive manner, consistent with overall management objectives.

The starting point for development of a comprehensive and consistent management plan is the assembly of relevant information and analyses into a resource inventory. Through a one-year internal and external scoping project, the GSL Planning Team identified the resource inventory information it believes is relevant to the good management of GSL. The inventory information was assembled by resource and use category, and was evaluated to develop descriptions of the current conditions of the lake's resources, and to discern trends which should be taken into account in future management. The information available on GSL and its resources is encyclopedic in scope and volume. Through internal and external scoping the team digested and presented it in the context of the key issues and needs identified. This statement represents a baseline picture of the current conditions and trends of GSL and its resources.

The SCCT is organized by resource category and includes hydrology, chemistry, land, mineral, cultural, and biological trust resources for which DNR is responsible. The SCCT also includes ecosystem, recreation, tourism, air and water quality, commercial and industrial, open space and critical lands, and visual resource management.

Geographic Setting

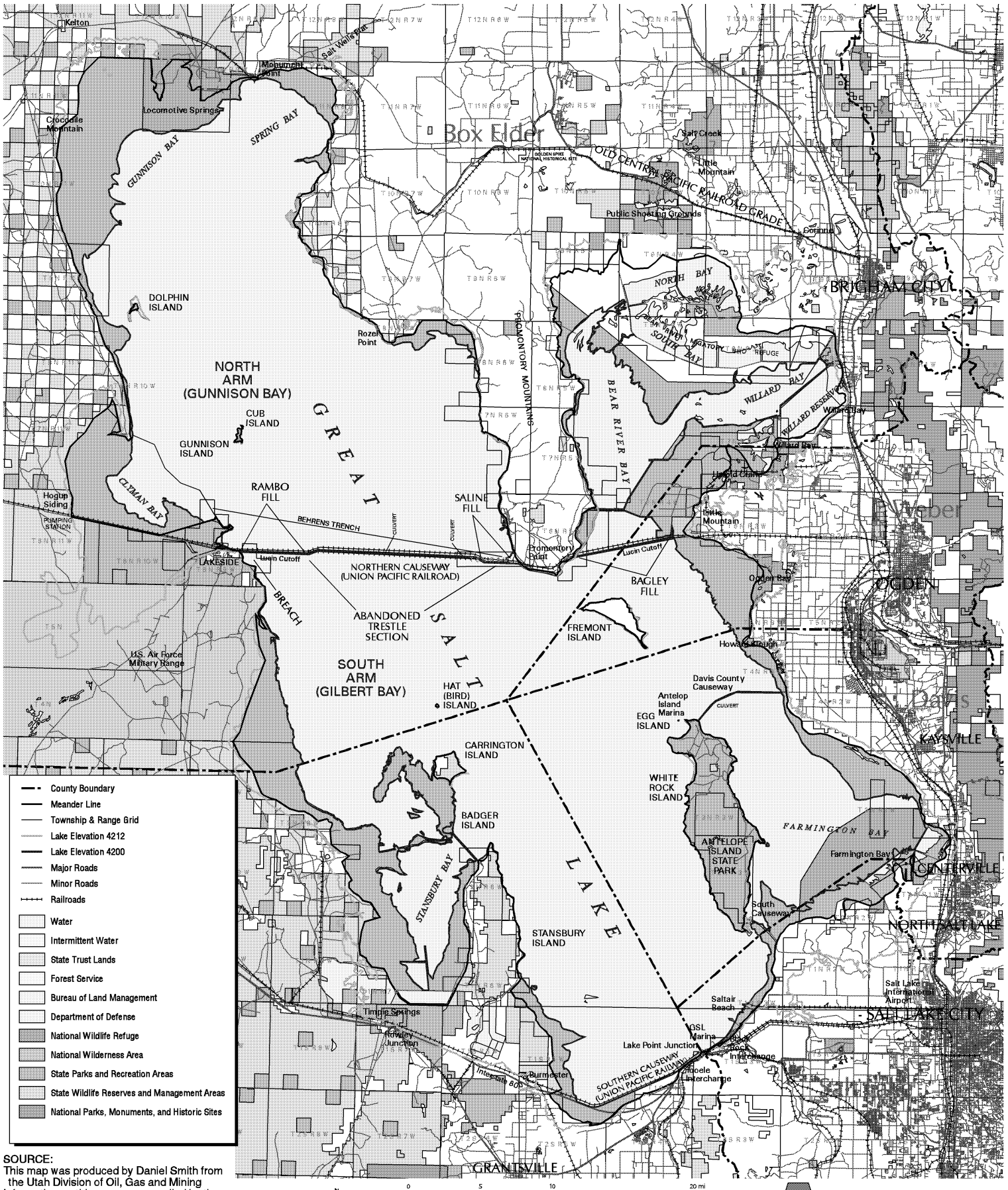
GSL is located in western North America at the eastern edge of the Great Basin of Utah (Exhibit 1, map of GSL). The Wasatch Range of the Rocky Mountains rises abruptly, forming the eastern boundary of the GSL valley. The east lake environment receives an average of 15 inches of moisture annually while the western lake environments receive less than 10 inches. The area is described as a cold desert where winter temperatures can fall below 0 degrees Fahrenheit and summer temperatures rise above 100 degrees Fahrenheit. Alkaline soil types dominate the landscape, influenced by the salts of the terminal lake basin. The long-term average lake elevation is 4202 (above sea level), but in historic time it has been as low as 4196 and as high as

4212. The lake is located within Box Elder, Weber, Davis, Salt Lake and Tooele counties. More than 50 percent of Utah's 1.8 million people live within 20 miles of the GSL and adjacent wetlands (DWR and the Great Salt Lake Site Assessment Team, 1998).

GSL is the remnant of ancient Lake Bonneville. After the Pleistocene, a warmer and dryer climate coupled with catastrophic flood through Red Rock Pass, Idaho drained much of Lake Bonneville and began the Great Salt Lake period some 12,000 years ago. GSL is a terminal basin which receives drainage water from several physiographic complexes, including the Uinta Mountains, the Wasatch Range, and the basin and range region (Great Salt Lake Site Assessment Team, 1998).

Exhibit 1 - Great Salt Lake Location Map

Plotted March 29, 2000



SOURCE:
This map was produced by Daniel Smith from the Utah Division of Oil, Gas and Mining
Information on this map was compiled by the Utah Department of Natural Resources and the Utah Automated Geographic Reference Center.
Official and detailed information is only available through DNR and AGRC.

Scale 1:280000 (verify scale)

State of Utah
Department of Natural Resources